

WHAT IS CLAIMED IS:

1. A base station controller to control a plurality of base stations communicating with a mobile station, said base station controller comprising:

5 a radio resource controller for maintaining a plurality of links between the mobile station and each of the base stations that the mobile station is currently reachable, said radio resource controller also maintaining separate information indicative of communication quality of each of the links;

10 a link data rate controller connected to said radio resource controller for determining a data rate for each of the links based upon the communication quality; and

a data distributor connected said radio resource controller for distributing communication data among the links to be transmitted at the corresponding data rate.

15 2. The base station controller according to claim 1 wherein said radio resource controller maintains the information on the communication quality based upon a report signal from the mobile station, the report signal being generated based upon a pilot signal from the base station.

20 3. The base station controller according to claim 2 wherein said radio resource controller updates the communication quality.

25 4. The base station controller according to claim 2 wherein said radio resource controller selectively maintains the links base upon a comparison of the communication quality to a predetermined threshold value.

5. The base station controller according to claim 2 wherein said radio resource controller maintains the information on the communication quality for a forward link and a reverse link.

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6. The base station controller according to claim 5 wherein said link data rate controller determines a forward link data rate and a reverse link data rate respectively based upon the communication quality for the forward link and the reverse link.

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7. The base station controller according to claim 6 further comprising a transmitter connected to said link data rate controller for transmitting the reverse link data rate to the base station.

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8. The base station controller according to claim 1 further comprising a table memory for storing the information indicative of the communication quality of each of the links and identification information for the links.

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9. A mobile station to be communicated with a plurality of base stations, said mobile station comprising:

a radio resource controller for maintaining a plurality of links between the mobile station and each of the base stations that the mobile station is currently reachable, said radio resource controller also maintaining separate information indicative of communication quality of each of the links;

a link data rate controller connected to said radio resource controller for determining a data rate for each of the links based upon the communication quality; and

a data distributor connected said radio resource controller for distributing
5 communication data among the links to be transmitted at the corresponding data rate.

10 10. The mobile station according to claim 9 wherein said radio resource controller maintains the information on the communication quality for a forward link and a reverse link.

11. The mobile station according to claim 10 wherein said link data rate controller determines a forward link data rate and a reverse link data rate respectively based upon the communication quality for the forward link and the reverse link.

15 12. A mobile station to be communicated with a plurality of base stations, said mobile station comprising:

a receiver for receiving sub frame information from one of the base stations, the sub frame information indicative of dividing a frame of transmission data and a
20 data rate;

a sub frame generator connected to said receiver for dividing the transmission data based into a plurality of sub frames upon the sub frame information; and

a transmitter connected to said sub frame generator for transmitting the sub
25 frames of the transmission data at the data rate.

13. A method of controlling a plurality of base stations that is communicating with a mobile station, comprising the steps of:

- maintaining a plurality of links between the mobile station and each of the
- 5 base stations that the mobile station is currently reachable;
- maintaining separate information indicative of communication quality of each of the links;
- determining a data rate for each of the links based upon the communication quality; and
- 10 distributing communication data among the links to be transmitted at the corresponding data rate.

14. The method of controlling a plurality of base stations according to claim 13 wherein said communication quality is generated based upon a pilot signal from the

15 base station.

15. The method of controlling a plurality of base stations according to claim 14 wherein said communication quality is periodically updated.

20 16. The method of controlling a plurality of base stations according to claim 14 wherein said links are selectively maintained base upon a comparison of the communication quality to a predetermined threshold value.

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17. The method of controlling a plurality of base stations according to claim 14 wherein said communication quality is maintained for a forward link and a reverse link.

5 18. The method of controlling a plurality of base stations according to claim 17 wherein said data rate includes a forward link data rate and a reverse link data rate respectively based upon the communication quality for said forward link and said reverse link.

10 19. The method of controlling a plurality of base stations according to claim 18 further comprising an additional step of transmitting the reverse link data rate to the base station.

15 20. The method of controlling a plurality of base stations according to claim 13 wherein the information indicative of the communication quality of each of the links and identification information for the links are stored in a predetermined table.

21. A method of communicating with a plurality of base stations, comprising:
maintaining a plurality of links between the mobile station and each of the
20 base stations that the mobile station is currently reachable;
maintaining in the mobile station separate information indicative of
communication quality of each of the links;
determining at the mobile station a data rate for each of the links based upon
the communication quality; and

distributing communication data among the links to be transmitted at the corresponding data rate.

22. The method of communicating with a plurality of base stations according to
5 claim 21 wherein said communication quality includes information on a forward link
and a reverse link.

23. The method of communicating with a plurality of base stations according to
claim 22 wherein said data rate includes a forward link data rate and a reverse link
10 data rate respectively based upon the communication quality for the forward link and
the reverse link.

24. A method of communicating with a plurality of base stations, comprising:
receiving sub frame information at a mobile station from one of the base
15 stations, the sub frame information indicative of dividing a frame of transmission
data and a data rate;

dividing the transmission data at the mobile station based into a plurality of
sub frames upon the sub frame information; and

transmitting from the mobile station the sub frames of the transmission data
20 at the data rate.

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